

REMARKS

The Official Action mailed October 18, 2006, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on October 6, 2003; December 19, 2003; February 17, 2005; March 1, 2005; and July 5, 2005. A further Information Disclosure Statement was filed on January 5, 2006 (received by OIPE January 9, 2006), and consideration of this Information Disclosure Statement is respectfully requested.

Claims 10-18, 20, 21 and 24-27 were pending in the present application prior to the above amendment. Claims 12-18 and 24-27 have been amended to clarify the features of the present invention, and new dependent claims 28-37 have been added to recite additional protection to which the Applicants are entitled. Accordingly, claims 10-18, 20, 21 and 24-37 are now pending in the present application, of which claims 10-12, 20 and 21 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 1 of the Official Action asserts that Applicants elected claims 1-9, 19, 22 and 23; however, it is noted that the Applicants elected claims 10-18, 20, 21 and 24-27 in the *Amendment and Response to Restriction Requirement* filed September 16, 2005.

Paragraph 2 of the Official Action indicates the Examiner's withdrawal of claims 1-9, 19, 22 and 23; however, it is noted that these claims were canceled in the above-referenced *Amendment and Response*.

Paragraph 5 of the Official Action objects to claims 13-18 and 24-27 citing *Ex parte Markush* and asserts that "[it] is improper to use the term 'comprising' instead of 'consisting of'" (pages 2-3, Paper No. 10122005). It is noted that claims 13-18 and 24-27, as filed, did not use the term "comprising." Also, the use of "or" is an acceptable

alternative expression (see MPEP 2173.05(h).II, page 2100-222, Rev. 3, August 2005). In any event, in conformance with the Examiner's suggestion, the Applicants have amended claims 13-18 and 24-27 into Markush form. Reconsideration and withdrawal of the objections are respectfully requested.

Paragraph 7 of the Official Action rejects claims 12, 17 and 18 under 35 U.S.C. § 112, second paragraph, asserting that there is insufficient antecedent basis for "an irradiated surface." The Applicants note that claim 12 already positively recites "an irradiated surface." However, in order to clarify the claim, the Applicants have amended claim 12 to recite "an irradiated surface of the conductive layer." The Applicants respectfully submit that amended claim 12 is definite. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Paragraph 9 of the Official Action rejects claims 10, 13, 14, 20, 24 and 25 as anticipated by U.S. Patent No. 5,304,357 to Sato et al. The Applicants respectfully traverse the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicants respectfully submit that an anticipation rejection cannot be maintained against independent claim 10 of the present application. Specifically, independent claim 10 recites a first laser beam with a wavelength of visible light or a shorter wavelength than visible light and a second laser beam of a fundamental wave. Also, the specification includes the following disclosure: "A fundamental wave with a wavelength on the order of 1 μm is not absorbed much in a normal semiconductor thin film with insufficient efficiency ... the fundamental wave is absorbed more in the semiconductor thin film melted by the harmonic" (page 38, lines 18-21). That is, the

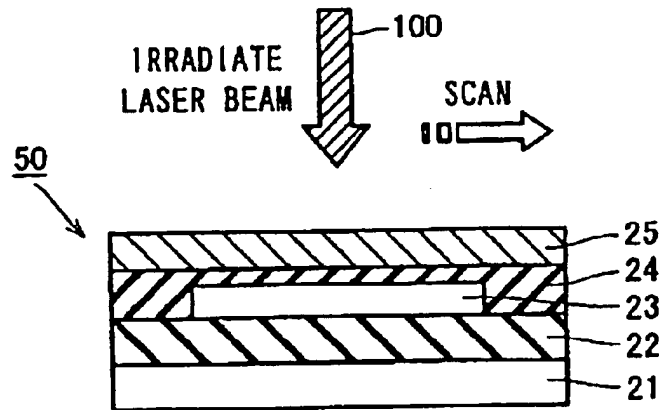
visible light and that the second laser beam (Ar laser beam 51) could or should be a fundamental wave, either explicitly or inherently. Also, Sato does not teach that the first laser beam is absorbed in a semiconductor thin film and that the second laser beam is absorbed in a semiconductor film melted by a long beam of the first laser beam.

Since Sato does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 10 of the Official Action rejects claims 12, 17 and 18 as anticipated by U.S. Patent No. 6,897,166 to Sotani et al. The Applicants respectfully submit that an anticipation rejection cannot be maintained against independent claim 12 of the present application. Independent claim 12 recites irradiating a second laser beam of a fundamental wave and a long beam having a wavelength of visible light or a shorter wavelength than visible light at the same time to a region of an irradiated surface. For the reasons provided below, the Applicants respectfully submit that Sotani does not teach the above-referenced features of the present invention, either explicitly or inherently.

Without explicit support from the reference, the Official Action asserts that Sotani teaches "processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long [beam]; and ... irradiating a second laser beam of a fundamental wave" (page 7, Paper No. 10122005). The Official Action asserts that continuous-wave YAG laser beam 100 corresponds with the long beam of the first laser beam of the present claims. The Official Action does not specifically address whether Sotani teaches a second laser beam of a fundamental wave; however, the Official Action appears to assert that the disclosure at column 12, lines 42-48 supports a second laser beam. The Applicants respectfully disagree and traverse the above assertions in the Official Action.

Sotani appears to disclose irradiation of a single laser beam, the continuous-wave YAG laser beam 100 (Figure 8 reproduced below).



Sotani does not teach using two laser beams, much less using two laser beams with different wavelengths at the same time. Rather than teaching the use of two laser beams at the same time, Sato merely teaches that “another laser beam may alternatively be employed” (column 12, lines 44-45; emphasis added). Therefore, Sotani does not teach irradiating a second laser beam of a fundamental wave and a long beam (having a wavelength of visible light or a shorter wavelength than visible light) at the same time to a region of an irradiated surface, either explicitly or inherently.

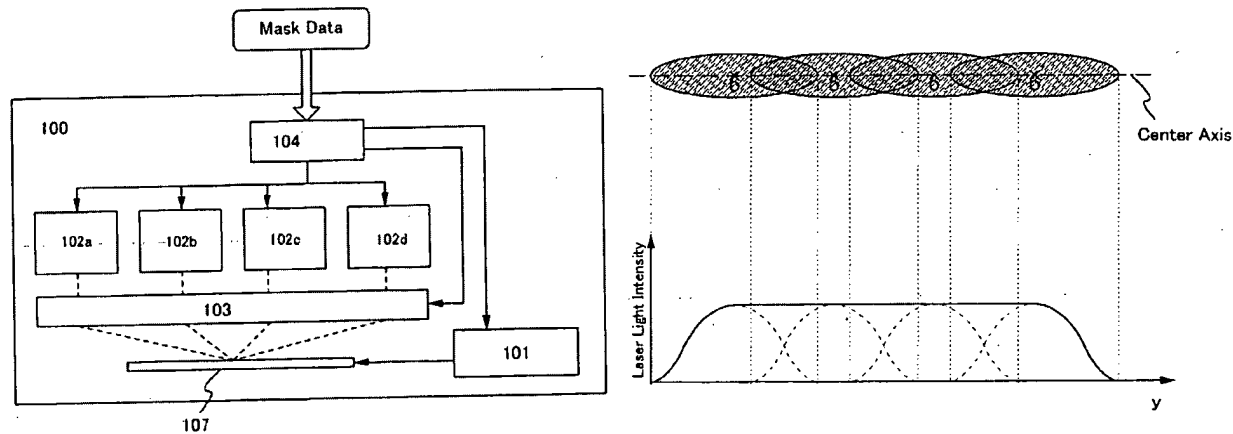
Since Sotani does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 11 of the Official Action rejects claims 11, 15, 16, 21, 26 and 27 as anticipated by U.S. Patent Application Publication No. 2003/0136772 to Yamazaki et al. The Applicants respectfully submit that an anticipation rejection cannot be maintained against independent claims 11 and 21 of the present application. Independent claims 11 and 21 recite irradiating a second laser beam of a fundamental wave and a long beam having a wavelength of visible light or a shorter wavelength than visible light at the same time to a region of an irradiated surface. For the reasons provided below, the

Applicants respectfully submit that Yamazaki '772 does not teach the above-referenced features of the present invention, either explicitly or inherently.

The Official Action asserts that paragraphs 61-66 and 183 of Yamazaki '772 teach irradiating first and second laser beams, as claimed, at the same time. The Applicants respectfully disagree and traverse the above assertions in the Official Action.

Yamazaki '772 appears to disclose irradiating at least two laser beams, e.g. laser oscillation apparatuses 102a to 102d (Figures 1, 3A and 3B reproduced below).



However, Yamazaki '772 is silent as to the combination of a first laser beam with a wavelength of visible light or a shorter wavelength than visible light and a second laser beam of a fundamental wave. Rather, in Yamazaki '772, it appears that each of the laser oscillation apparatuses 102a to 102d is the same. Therefore, Yamazaki '772 does not teach irradiating a second laser beam of a fundamental wave and a long beam having a wavelength of visible light or a shorter wavelength than visible light at the same time to a region of an irradiated surface, either explicitly or inherently.

Since Yamazaki '772 does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

New dependent claims 28-37 have been added to recite additional protection to which the Applicants are entitled. For the reasons stated above and already of record, the Applicants respectfully submit that new claims 28-37 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,


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